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ABSTRACT

The organizational and working relationships between postsecondary education and economic development in selected states were investigated, with emphasis on identifying state-level coordinated programs in 12 geographically diverse states known to be active in linking education to economic development (Colorado, Connecticut, Georgia, Louisiana, Minnesota, New York, North Carolina, Ohio, Oklahoma, Oregon, South Carolina, and Wisconsin). States neighboring Arizona (California, Nevada, New Mexico, Texas, and Utah) were also evaluated. Letters requesting information from state agencies preceded telephone follow-ups. It was found that most of the states utilize postsecondary education to some extent in their state-level development strategies. Only two states (Nevada and Oregon) seem to rely chiefly on local efforts to link postsecondary education to economic development. The remaining states offer state-level coordinated programs that are discussed under the following headings: title, history, program description, administrative structure, staff size, funding, average cost per trainee, agency links, and the comparative role of Comprehensive Employment and Training Act (CETA) programs. None of the states had a comprehensive program linking economic development with all sectors of postsecondary education. Typically, state-sponsored training was provided by the public sub-baccalaureate sectors for entry-level jobs. Only three states made use of their public colleges and universities and in only one was private postsecondary trade and technical schools utilized. No truly comprehensive program was identified and no state had designated a single source of occupational training information. For each of the 16 states, information is presented on program history, services, structure, and other program areas. (Author/SW)

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Arizona Office of Economic Planning and Development
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September, 1981

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A STUDY OF

THE RELATIONSHIP BETWEEN POSTSECONDARY EDUCATION

AND ECONOMIC DEVELOPMENT IN SELECTED STATES

A Joint Project of the
Arizona Office of Economic Planning and Development
and the
Arizona Commission for Postsecondary Education

Prepared by

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September, 1981

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EXECUTIVE SUMMARY

The Arizona Commission for Postsecondary Education and the Governor's Office of Economic Planning and Development have cooperated in preparing a descriptive study of the organizational and working relationships between postsecondary education and economic development in selected states. The emphasis is upon identifying *state-level coordinated programs* in twelve geographically diverse states known to be active in linking education to economic development. Similar programs in Arizona's neighboring states are also described.

For purposes of this study, education is limited to the postsecondary level and is taken to include public and private colleges and universities, community colleges, public area vocational-technical centers, and private trade and technical schools beyond the high school level. Economic development is defined rather restrictively as activities which contribute to job creation either through expansion or relocation of businesses and industries.

Letters requesting this information were sent to the relevant state agencies and numerous telephone follow-ups were made. In addition to obtaining state reports, a computerized library search was conducted at Arizona State University and the publications of education and public interest associations were examined. Surprisingly, it was found that there is no established body of literature in this area and comprehensive models to link all sectors of postsecondary education with economic development apparently have not yet been developed.

The report consists of three chapters. The first chapter discusses the methodology, reviews the literature, and summarizes the findings. Chapter II contains descriptions of state-level coordinated programs in the twelve

selected states. Chapter III contains the same information for Arizona's neighboring states. A Bibliography follows. Copies of the letters sent to state agencies requesting information conclude the report.

It was found that most of the states examined utilize postsecondary education to some extent in their state-level development strategies. Only two states included in this study (Nevada and Oregon) seem to rely chiefly on local efforts to link postsecondary education to economic development. The remaining states offer state-level coordinated programs which are discussed under the following headings: title; history; program description; administrative structure; staff size; funding; average cost per trainee; agency links; and the comparative role of Comprehensive Employment and Training Act (CETA) programs. Among none of these states, however, is there a comprehensive program linking economic development with all sectors of postsecondary education. Degrees of integration vary, but typically, state-sponsored training is provided by the public sub-baccalaureate sectors for entry-level jobs. Only three states make use, albeit limited, of their public colleges and universities and in only one are private postsecondary trade and technical schools utilized. No truly comprehensive program was located and no state examined has designated a single source of occupational training information. As a consequence, postsecondary education seems generally to be under-utilized in economic development strategies.

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CHAPTER I

INTRODUCTION

The renewed recognition that American society rests on a strong economy has stimulated great interest in economic development. As policy makers have evaluated development strategies, the role of education in contributing to economic development has become a major priority. Reflecting this interest in education's role, the Arizona Commission for Postsecondary Education and the Governor's Office of Economic Planning and Development have cooperated in preparing a descriptive study of the organizational and working relationships between the postsecondary education community and economic development in selected states.

For each of the selected states, the emphasis is upon identifying *state-level coordinated programs*. In Arizona, no such program currently exists.[1] This is not to claim, of course, that Arizona's postsecondary community is uninvolved in economic development. Quite the opposite is true. But it is the case that Arizona's postsecondary educational sectors contribute to economic development through independent, local efforts. Examples are numerous and can only be hinted at here. They include within the public universities the establishment of a Center for Excellence in Engineering at Arizona State University; the Bureau of Business and

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[1]House Bill 2433 was submitted in the 1981 legislative session by Representative James Cooper to provide start-up funds for economic development and education but the bill did not emerge from committee.

Industrial Development at Northern Arizona University; and the urban and rural development programs offered by the University of Arizona's Departments of Agricultural Economics, Agricultural Extension, and Geography and Regional Development. Arizona's private colleges and universities are also involved in economic development. Both the American Graduate School of International Management and Grand Canyon College, for example, provide entrepreneurial assistance through their Small Business Institutes. Finally, Arizona's community colleges and skill centers are making every effort to provide business and industry with the skilled workers needed in a changing, technological economy. Well known examples include the special programs designed at Pima Community College to train aircraft interior assemblers, at Central Arizona College to train plastics technicians, and at Maricopa County Skill Center to train cable TV installers. While such exemplary local efforts are occasionally described in the present study, our purpose was to identify only those efforts which are coordinated at the state-level. Vocational education at the secondary and high school levels in Arizona also plays an important role in training but, again, only postsecondary programs fall within the scope of this study.

Methodology

The following twelve states were selected for examination: Colorado, Connecticut, Georgia, Louisiana, Minnesota, New York, North Carolina, Ohio, Oklahoma, Oregon, South Carolina, and Wisconsin. The states included in the study were selected by members of a consultative committee formed by the Governor's Office of Economic Planning and Development. Members

include: Messrs. David Graybill and Gary Moore, OEPAD; Dr. Ray Ryan, Arizona Department of Education; and Mr. Gene Dorr, State Board of Directors for Community Colleges of Arizona. The intent was to select states which were known to be active in linking education to economic development and were representative of varying geographical areas. After the study began, it was also decided to include Arizona's neighboring states of California, Nevada, New Mexico, Texas, and Utah.

For purposes of this study, the following definitions were adopted:

- Postsecondary Education: Education offered by public and private colleges and universities, community colleges, public area vocational-technical centers, and private trade and technical schools beyond the high school level.

- Economic Development: Activities which contribute to job creation either through expansion or relocation of businesses and industries.

Although restrictive, these definitions were intended to keep the relevant information manageable. Some of the coordinated programs described in Chapters II and III utilize secondary as well as postsecondary educational sectors and these programs are so noted. For purposes of this study, however, no attempt was made to otherwise examine the economic development role of secondary education, adult education, and community education at the high school level.

To collect information on the relationship between economic development and postsecondary education, a letter (Attachment A) was sent to the governor's office, the postsecondary education commission, and the state offices of vocational education and industrial development for each of the twelve states. Because Arizona's neighboring states were included late in the study, only the postsecondary education commissions

were contacted by mail. It was quickly discovered, however, that some states wanted more specific information about the nature of the project before responding. For those agencies or offices, a second letter was drafted (Attachment B).

Response to requests for state reports and literature was uneven. Some states replied promptly and fully (especially New York and Wisconsin), while others (notably Connecticut and Nevada) were slow to respond even to telephoned follow-ups. With few exceptions, requests for information were honored most quickly by state offices of vocational education and economic development followed by governors' offices, while responses from postsecondary education commissions were the last to arrive or are entirely lacking. Such response patterns reflect, as will become evident, the patterns of coordinated activities between economic development and post-secondary education in the states under examination.

In examining the relationship between postsecondary education and economic development in each of the selected states, the study concentrated on determining the following aspects of each coordinated program: history; program services; administrative structure; staff size; funding levels; average cost per trainee; formal and informal relationships among the agencies involved; and the comparative role of the Comprehensive Employment and Training Act (CETA) programs. Descriptions of the services provided are typically contained in state brochures; the remaining topics usually had to be covered in telephone conversations.

Literature Review

In addition to obtaining state reports, a computerized library search was conducted at Arizona State University which included education,

business, and public affairs data bases. Also examined were the publications of the National Center for Research in Vocational Education; the American Industrial Training Council; the National Governors' Association; the Western Interstate Commission for Higher Education (WICHE); the Education Commission of the States; the State Higher Education Executive Officers/National Center for Education Statistics Communication Network; the American Vocational Association; and the Council of State Community Affairs. Such an extensive search could reasonably be expected to yield a wealth of relevant material. However, the literature in this area is highly limited. This may seem surprising at first, but it is consistent with the fact that postsecondary institutions have only recently begun to see economic development as a direct part of their mission. Of course, those postsecondary educational sectors offering vocational-technical training have always viewed themselves as playing a role in economic development. But it is nonetheless true that all postsecondary sectors are currently rethinking and reassessing their own particular relationship to economic development. The literature reflects the newness of this concern.

At the university level, economic development represents a departure from traditional academic concerns. One of the earlier and more influential examinations of the topic is Bramlett's The Academic Community: A Backup Force to State Government (September, 1974). Although this study focuses on a fourteen-state region of the South, its observations and recommendations are not unique to that area. In fact, Bramlett delivered the keynote address to the 1980 Regional Conference on

Higher Education and Economic Development in the West (WICHE, 1980), a conference held to examine why "universities remain a largely untapped resource in the area of economic development" and to make recommendations on ways to remedy that situation. Through its Economic Development Task Force, WICHE continues to conduct research in this area: an inventory of technical resources offered by Western universities (April, 1981); a regional needs assessment on higher education and economic development (June, 1981a); and a survey of engineering education in the West (June, 1981b). Discussion of the impediments to university-industry cooperation and some suggested solutions are also found in "Research, Innovation, and University-Industry Linkages" (Prager and Omenn, 1980). The current interest is so great that there are doubtless many other studies in progress on the role of universities in economic development, but, at present, they appear to be largely unpublished and available only to a limited audience.

Published material on the relationship of vocational-technical education to economic development is more widely available. As indicated earlier, this is due in part to this sector's long-standing interest in economic development; it is also due to the efforts of the National Center for Research in Vocational Education. The National Center has published a number of recent calls for vocational education (both secondary and postsecondary) to reevaluate its purpose and to allign its objectives with state and local development plans (Petty, 1978; Braden and Paul, 1979; Dunham, 1980; Lund, 1980; Taylor, 1980; Striner, 1981) and it recently published a descriptive study of exemplary collaborative practices between

industry and community and technical colleges (Warmbrod, Persavich, and L'Angelle, 1981). The National Center also hosted a National Conference on the Role of Vocational Education in Economic Development and Productivity in June, 1981. The papers presented all stressed the contribution vocational education can make to economic development and the need for vocational education to reexamine its objectives and increase its flexibility (Etzioni, 1981; Evans, 1981; Lecht, 1981). Much of this literature is of limited usefulness, however, because it includes both secondary and postsecondary levels within its definition of vocational education.

Perhaps more directly pertinent to this study is research currently being conducted for the American Vocational Association. Entitled The Role of Vocational Education in Economic Development, this State-of-the-Practice Report (Bushnell, December, 1980) is the first product from the Economic Development Project which the American Vocational Association has undertaken under a contract with the U.S. Department of Education. Like the studies published by the National Center, vocational education is defined as occupational training at both the secondary and postsecondary levels but the emphasis here is upon postsecondary training. The A.V.A. report examines strategies by which vocational educators are assisting in economic development and presents three models of state approaches to economic development and vocational education. These models appear to be the only ones developed by researchers thus far and may be summarized as follows:

- Single State Agency Model--The State economic development agency is solely responsible for planning, coordinating, and implementing a state-wide program.

- Multi-Agency Model--The functions of economic development and job creation are shared by a number of state agencies. Vocational education retains the responsibility of providing training services to prospective employers.

- Local Development Model--Job Creation programs are developed by cities, counties, and local communities and may operate independently of state programs or in cooperation with them.

This is the most systematic study found in the literature to date. It should be emphasized, however, that it examines only the role of vocational education in economic development and makes no attempt to integrate the other postsecondary educational sectors. It appears, therefore, that no models have been developed which directly address the topic of the present paper--the relationship between economic development and postsecondary education.

In addition to the general discussions of education and economic development, numerous studies examine a particular state or region and are cited where appropriate in Chapter II in which specific state programs are described. Interested readers will also find many such works listed within the Bibliography. However, because state development strategies are changing rapidly, particularly with regard to the role of postsecondary education, other studies located are already obsolete and have therefore been omitted.

Finally, there is a small body of literature which addresses postsecondary education as an industrial incentive mechanism. In such studies as Jacobs (August, 1979) and Aulde (August, 1980), training is included in more general discussions of industrial subsidies. In Dean (1968), vocational education is cited as a key factor in manufacturing site selection and this is clearly an assumption of Alexander Grant & Company

which, in conducting a study for the Conference of State Manufacturers' Association, includes vocational education as one of eighteen factors affecting a state's manufacturing business climate. In regard to the state-funded start-up training programs found in many of the states included in this study, only one researcher has examined their effectiveness (Van Cleve, 1976) and he concludes that such programs do not succeed as human resource development programs but rather "are as advertised--excellent industrial relocation tools. They are an indirect subsidy to industry, offered in competition with other states and locales as an inducement for relocation into an area where successful programs have been conducted in the past" (p. 92).

Findings

The vast majority of states included in this study utilize post-secondary education to some extent in their state-level development strategies. This has long been true of the Southeastern states (e.g., Georgia, Louisiana, North and South Carolina) and is more recently true of the Rocky Mountain and Plains states of Colorado, Utah, New Mexico, Oklahoma, and Texas. The Northeastern states and those in the Midwest generally have programs that are newly instituted or currently being developed, as in New York, Minnesota, and Ohio. Programs of recent origin are also typical of the Far West, although this region of the country seems to have more states entirely lacking such a state-level strategy (e.g., Arizona, Nevada, and Oregon) than has been found in other regions. Such cluster patterns are typical of the spread of innovation among the states; that is, due to emulation and competition, states seem to adopt new policies on a regional basis (Walker, 1969; Gray, 1973).

Of the states included in this study, only Nevada and Oregon seem to rely on local efforts to link postsecondary education to economic development. Among the state-level coordinated programs, the following generalizations may be made:

(1) Response to the need for trained workers for new and expanding businesses and industries has come chiefly from the public vocational education sectors. Private trade and technical schools play no active role in state development strategies.

(2) State-level responsibility for training prospective workers is assumed by a single state agency (usually that of economic development) or shared among several agencies (always including the offices of economic development and vocational education).

(3) Training programs are usually designed and monitored by state-level officials. Occasionally, however, state-level coordination is minimal with responsibility going chiefly to the local institution (Wisconsin) or to regional consortia (Minnesota and Ohio).

(4) The training programs are to assist a firm in its start-up manpower needs.[2] Hence, training is for entry-level positions and is typically short-term, customized to a company's specific requirements, and a combination of classroom and on-the-job training.

(5) Public university responses to ecnomic development are erratic and autonomous, and generally conform to a broader definition of economic development which includes research and development, economic surveys, and entrepreneurial training.

(6) Centralized information on the involvement of private colleges and universities is unavailable.

The state by state program information is contained in Chapters II and III. Chapter II presents information on the relationship between economic

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[2]California's program also provides upgrade training but it is designed as a manpower development program rather than as a tool for economic development.

development and postsecondary education in each of the twelve selected states. Chapter III contains the same information on Arizona's neighbors. For each state, an attempt is made to indicate the role of all postsecondary educational sectors in the state's economic development. Some relevant local activities are mentioned but in no state are these assumed to exhaust the list of potential projects. The state-level coordinated programs are presented in detail under the following headings: title; history; program description; administrative structure; staff size; funding; average cost per trainee; agency links; and the comparative role of CETA.

Perhaps the most surprising discovery to come from this survey is the fact that no state examined has a comprehensive program to link economic development and postsecondary education. As Table I demonstrates, in those states where state-level coordinated programs exist, there is no instance of a state utilizing all postsecondary education sectors. North Carolina has made the best progress toward achieving such a goal with its emerging program in microelectronics. But elsewhere, the vision is limited. If state-sponsored training is available, it is nearly always for entry-level jobs. Given the spectacular growth and desirability of technological industries, such a strategy seems at best short-sighted. Concurrent with the growth in technology has come a need for longer training periods than normally provided within the context of vocational education. Hence, it again seems short-sighted to focus all development efforts at the sub-baccalaureate level. Finally, it seems regrettable to omit at every level the private education sector.

TABLE 1

STATE	STATE-LEVEL COORDINATED PROGRAM	SECTORS INVOLVED IN COORDINATION BASED UPON INFORMATION GATHERED					
		Public Colleges and Universities	Private Colleges and Universities	Community Colleges	Public Area Voc-Tech Centers	Private Postsec Trade & Technical Schools	CETA
Arizona	NO						
California	YES	NO	NO	YES	NO	YES	YES
Colorado	YES	NO	NO	YES	YES	NO	YES
Connecticut	YES	Unk	Unk	Unk	Unk	Unk	Unk
Georgia	YES	NO	NO	NO	YES	NO	NO
Louisiana	YES	NO	NO	NO	YES	NO	NO
Minnesota	YES	NO	No	YES	YES	NO	YES
Nevada	NO						
New Mexico	YES	NO	NO	NO	YES	NO	YES
New York	YES	YES (ltd)	YES (ltd)	YES	YES	NO	YES
North Carolina	YES	NO	NO	YES	NO	NO	NO
Ohio	YES	YES(branches)	NO	YES	YES	NO	YES
Oklahoma	YES	NO	NO	NO	YES	NO	NO
Oregon	NO						
South Carolina	YES	NO	NO	NO	YES	NO	NO
Texas	YES	YES(selected)	NO	YES	YES	NO	YES (ltd)
Utah	YES	NO	NO	NO	YES	NO	YES (ltd)
Wisconsin	YES	NO	NO	NO	YES	NO	YES

These observations are the result of many written and telephoned requests for information and, as such, may overlook certain important facts. But it is significant that a composite picture can be formed only through questioning numerous sources. A business or industry seeking to expand or relocate within a particular state cannot be expected to pursue such information so doggedly. What is required is a comprehensive vision of economic development and postsecondary education and a source of occupational training information that will further such an effort. The recognition of

this fact is beginning to be voiced. In Oregon, for example, the Report of the Education and Employment Subcommittee of Project 90 calls for "a system to provide education and training information and services to new and existing industries." A similar plea has been voiced in Connecticut. In its Annual Report to the Governor, 1979, the State Employment and Training Council recommends the "development of a formal state strategy for meeting business employment needs" through, in part, the "designation of a primary mode of communication between business concerns and/or local management function representing the actors in the employment and training system." At present, however, no state surveyed can boast of such a system.

CHAPTER II

THE RELATIONSHIP BETWEEN ECONOMIC DEVELOPMENT AND POSTSECONDARY EDUCATION IN TWELVE SELECTED STATES

COLORADO

The state of Colorado is currently experiencing tremendous economic growth. A prime concern among state officials, however, is how to best manage the expanding economy to provide the maximum benefit to Colorado residents. Because economic growth does not necessarily benefit the poor, unemployed, and underemployed residents of a state, Governor Lamm has established a "Jobs for Coloradans" policy. Under this broad policy, the state attempts to prepare its own residents for jobs in the expanding private sector. To do so, the Colorado FIRST program has been established to link the vocational education system with new or expanding employers. It is the state's principal means for tying economic development, new industry promotion, and the related skill training needs together.[1]

We were not able to obtain information on the private education sector. Public university development activities include the following: the Small Business Assistance Center, the Bureau of Economic and Business Research, and the Engineering Research Center at the University of Colorado; the Mines Research Institute and the Energy Research Institute at the Colorado School of Mines; and the Agricultural Experiment Station at Colorado State University.

State-Level Coordinated Program

Title: Colorado FIRST (Flexible Industry Related Start-Up Training Program)

Type: Start-up industrial training for new and expanding businesses utilizing public community colleges and area vocational-technical centers.

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[1]For a broader discussion of Colorado's use of employee and training programs in its economic development strategy, see National Governors' Association (April, 1981).

History: In 1974, members of the Colorado Legislature and state officials visited several states to study their industrial start-up programs. Enabling legislation was passed to create such a program but it was not funded. In 1978, it was decided to set up a pilot program to demonstrate the effectiveness of start-up programs in economic development and funds were sought from a variety of sources. Initial funding was obtained in May, 1980 with $100,000 from the Four Corners Regional Commission and $75,000 from the Office of Manpower Planning and Development (CETA Governor's discretionary funds).

Program Description: Colorado FIRST seeks to assure a trained labor supply for new or expanding industries by joining state training resources with employers who have start-up training needs or, where existing resources cannot be used, by funding alternative training. It is intended to assure that new entry-level jobs go to Coloradans first. Preference is given to new or expanding manufacturing firms, especially in depressed or rural areas, and for jobs paying more than minimum wage. It does not fund training for a direct outside competitor if an existing business is already in place, nor does it fund programs which compete with union apprenticeships or for which trained workers already exist.

Colorado FIRST is not a training delivery agent but is set up to function through the State Board for Community Colleges and Occupational Education, the state agency responsible for administering occupational education at all levels. The program is designed to provide what has been characterized as "demand-driven training" by using existing administrative and training systems on a demand basis. When start-up training is required, Colorado FIRST draws up a contract with a public community college or area vocational school. Training may be conducted at the institution or at the plant site by either school or company instructors. The role of the institution may vary from being responsible for all aspects of the training to being simply a pass-through for the monies. Typically, however, the community college will help with curriculum and scheduling and provide the instructors and monitor progress while the training is conducted at the plant site. The program has no permanent equipment and specialized equipment is leased if necessary. Trainees are not paid during the training period (except those funded by CETA), and are not obliged to take a job. Similarly, the company has no obligation to hire those trained.

Administrative Structure: Colorado FIRST is administered by the Office of Industrial Training, in the Division of Commerce and Development, Department of Local Affairs.

Staff Size: 1 Director
2 Professional Staff
1 Secretary

Funding: The $100,000 grant from the Four Corners Regional Commisssion and the $75,000 from the CETA Governor's discretionary funds cover the program's administrative costs. Additional funding has been provided by the State Board for Community Colleges and Occupational Education (SBCCOE) Balance of State CETA. The program is currently funded through January, 1982.

Colorado FIRST was unsuccessful in obtaining funds from the legislature during the past session and intends to request additional funds at the next legislative session. The program is also currently seeking supplemental funds from a variety of sources.

In the eight projects completed thus far, $97,279 was provided by Colorado FIRST to train 445 persons. For each project, monies from Colorado FIRST were combined with those from other agencies. For example, a bus manufacturing company, headquartered in Germany, decided to locate an assembly plant in Lamar, Colorado. The Office of Manpower Planning and Development provided $56,490 in addition to an estimated $1 million from Balance of State CETA for CETA eligibles stipends and tuition; Colorado FIRST provided approximately $50,000 for a program coordinator/director; SBCCOE provided $36,120 through FTE generation for instructional costs; and private industry provided physical facilities in the assembly plant. Training equipment was provided jointly by the private industry, the SBCCOE, and Lamar Community College. Although this example is more complex than most, it illustrates the multi-agency coordination that characterizes all the ventures that Colorado FIRST has undertaken.

Average Cost Per Trainee: $400-$500.

Agency Links: Coordination of efforts among the various agencies is entirely informal. However, the agencies are currently working toward an overall interagency agreement.

Comparative Role of CETA: Funds from CETA and from Private Industry Councils (PIC's) are utilized whenever possible in Colorado FIRST projects. For example, Colorado FIRST provided $8,500 and CETA/PIC, $49,200 to train the first employees for an alcohol fuel production plant in eastern Colorado.

CONNECTICUT

Information on the relationship between economic development and postsecondary education in Connecticut is limited. The majority of letters and telephone calls to Connecticut officials went unanswered and it is therefore difficult to describe with confidence state programs to link economic development with postsecondary education. It is clear from the literature provided, however, that Connecticut is interested in promoting such linkages.

In June of 1978 the late Governor Ella Grasso appointed a Coordinator for Employment and Training Policy to improve coordination and expansion of manpower and job training programs. This appointment was identified by the Governor as an essential part of the state's overall economic development effort. Promotional materials sent by the Coordinator's Office testify to the progress Connecticut has since made in linking economic development and training. Unlike similar materials from other states, Connecticut includes in a single package for business and industry information on all public postsecondary educational sectors--colleges and universities, community colleges, area vocational-technical centers--as well as information on CETA training programs.

Information on each educational sector is brief but contact persons are listed and types of services are indicated. For example, the University of Connecticut offers in-plant training programs in physics and business as well as technical assistance through the Center for Insurance Education, the New England Research Application Center, and the Institute of Materials Science. At the four state colleges, services include cooperative education

programs, in-plant seminars, and entrepreneurial assistance to small businessess. Connecticut's twelve regional community colleges offer customized training programs at the worksite and a systemwide Director of Community Services is available to help with programs which require statewide coordination or participation among several community colleges. In-plant education is also available from Connecticut's area vocational-technical centers. Finally, like many of the states in this study, Connecticut has a state-funded start-up training program. Available information follows.

New programs will undoubledly continue to emerge given the great interest in Connecticut in reinforcing the relationship between postsecondary education and economic development. For example, a Governor's Blue Ribbon Commission on Education and the Economy, composed of representatives of business and industrial firms, has been formed to make recommendations on improving the capacity of the higher education system to respond to the needs of the Connecticut economy. The Governor has asked the Commission to make final recommendations in time for the 1982 legislative session. In addition, the State Council on Education for Employment, a special task force of business and education leaders, is currently studying ways to increase the integration between short-term training and the needs of the economy. The Council is primarily interested in education below the baccalaureate, but it is also exploring other programs relating higher education to economic development.

State-Level Coordinated Program

Title: No specific title.

Type: Start-up training for new or expanding businesses.

History: Apparently authorized by the 1978 Connecticut General Assembly.

Program Services: After analyzing a firm's manpower needs, a customized training program is designed. Trainees are recruited and screened by the

Connecticut Department of Labor and training is offered near or at the plant site. Instructors' salaries are paid and trainee salaries are subsidized by the state. Connecticut also assists in providing specialized equipment used in training.

Administrative Structure: The customized job training programs are administered by the Office of Job Training and Skill Development, Connecticut State Labor Department.

Staff Size: Unknown

Funding: Unknown

Average Cost Per Trainee: Unknown

Agency Links: Unknown

Comparative Role of CETA: Unknown

GEORGIA

Economic development and postsecondary education are not linked in any comprehensive manner in the state of Georgia. Aside from an inventory of research activity and non-academic services currently being prepared by the Governor's Commission on Postsecondary Education, the interest seems to be entirely upon utilizing the public vocational-technical education sector for entry-level start-up training.

State-Level Coordinated Program

Title: Quick Start

Type: Start-up industrial training for new and expanding businesses utilizing public vocational-technical centers.

History: The program began unofficially in 1966 and enabling legislation was passed two years later. The legislation is broadly worded, intended to quarantee flexibility, and includes language to exclude competition with established full-time programs offered by area vocational-technical schools and public high schools. Quick Start operated with interim funding until 1971 when legislative appropriations were approved. Since it began, it has trained more than 25,000 employees for some 500 domestic and international companies.

Program Description: Quick Start is intended to provide trained workers for entry-level positions in new or expanding manufacturing firms. Georgia has established a system of twenty-nine postsecondary vocational-technical schools and each has an industrial training coordinator funded by vocational education monies. When an employer is interested in locating or expanding, a Quick Start staff member works with the industrial training coordinator from the appropriate area vocational-technical school to assess the company's personnel needs. Once a training plan has been designed, a letter of commitment is drafted which specifies the roles of Quick Start and the company. Only services are specified. By law, programs must be less than one year in length. Typically they range between 1-6 weeks. Preemployment training is preferred but on-the-job training is also available and may be extended to include instruction in highly skilled areas such as tool and die making.

To provide training, Quick Start may utilize an institutional or plant site or will rent an auxiliary facility jointly with the company. A mobile

training unit for welding is also available and other mobile units are currently being developed. Instructors are often company personnel, paid by the state, and before they begin instruction, they are trained in technical teaching methods. Instructional materials, including manuals and tapes, can be provided. Equipment is available from the state's $41 million equipment pool; often, both state and specialized company equipment is utilized. Trainees are recruited, tested, and screened through the Georgia Employment Security Agency and the area vocational-technical school. They are not usually compensated and neither the trainee nor the company is obligated to the other once training is completed.

Administrative Structure: Quick Start is administered by the Office of Vocational Education, Georgia Department of Education.

Staff Size: 1 Director
2 Professional Staff
1 Secretary
30 Consultants (approximate)

Funding: $2.7 million for FY 1980 for operational costs ($1.2 million original appropriation; $1.5 million, supplemental).

Average Cost Per Trainee: $300

Agency Links: The links between the Department of Education and the Department of Industry and Trade are informal. The Department of Industry and Trade includes Quick Start staff in its recruitment efforts but Quick Start is entirely responsible for employee training.

Comparative Role of CETA: No CETA funds are utilized. The officials contacted believe their flexibility and success would be greatly diminished by use of CETA monies.

LOUISIANA

Like many of its neighboring southern states, Louisiana has developed a program to link economic development to a state-funded industrial training program. What sets Louisiana aside from most of its neighbors, however, is the fact that its development agency, the Department of Commerce and Industry, is solely responsible for the planning and delivery of training programs. Although the state has built an impressive vocational-technical system,[2] it is not an integral part of the Louisiana Industrial Training Program but participates only when requested to do so.

Louisiana is also distinct in the extent to which its university system has been encouraged to participate in the state's economic development. For example, the Louisiana Research and Development Program was created by Act 559 of the 1979 Legislature to bring higher education and industry together to promote economic development. Administered by the Board of Regents, it has chosen during fiscal years 1980 and 1981 to emphasize six areas, including economic development research and university-industry linkages in research and industrial development. The Louisiana Legislature is also currently giving favorable consideration to two measures involving universities and the business community. One will authorize the Board of Regents to establish a center for evaluation of innovative technology. A second will authorize one university on a pilot basis to launch a program of assistance to small businesses.

State-Level Coordinated Program

Title: Louisiana Industrial Training Program

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[2]See, for example, "Louisiana's Vo-Tech System: 52 Schools and $100,000,000 Later," PAR Analysis (January, 1978), 1-23

Type: Start-up industrial training for new and expanding businesses.

History: The Louisiana Industrial Training Program was first developed in 1974 for the Louisiana Department of Commerce and Industry by Development Resources, Inc. of Charlotte, North Carolina. This is a private consulting firm headed by Jay D. Little, Jr. Enabling legislation was passed in 1975 and funding for the program was first appropriated in January, 1976.

Program Description: The Louisiana Industrial Training Program is designed to serve new or expanding manufacturing firms needing a minimum of ten new or additional employees. Trainees are recruited, screened and tested by the Louisiana Department of Employment Security and attend courses without compensation, usually at night. Training is conducted either at the plant site, in a vocational training center, in a building provided by the community, or in a facility rented by the state. Instructors may be drawn from the company or from the area vocational training center. However, the preference is to use company instructors in a company setting. The state vocational-technical system provides services only when requested to do so by the Industrial Training Program. Instructional materials, including manuals, slide presentations, and video tapes are also provided, and the state will share the cost of raw materials used in the training with the company.

The training programs are normally 6-8 weeks in duration. After the pre-employment training is completed, neither the trainee nor the company is obligated to the other. However, additional on-the-job training for those trainees who are selected is also available.

Administrative Structure: The Industrial Training Program is administered by the Department of Commerce and Industry in the Louisiana Office of Commerce.

Staff Size: 1 Training Director
1 Training Specialist
1 Secretary

Funding: $750,000 to $1 million per year since program began.

Average Cost Per Trainee: $250

Agency Links: The Department of Commerce and Industry is solely responsible for design and delivery of training programs. The Louisiana Department of Education has no formal role in the program and informal contacts are infrequent. The autonomy of the Department of Commerce and Industry is seen by those officials contacted as an important factor in the program's success.

Comparative Role of CETA: CETA funds are not utilized in the Louisiana Industrial Training Program and the two programs operate independently.

MINNESOTA

No comprehensive system for linking economic development and post-secondary education exists in Minnesota. A state-funded labor force training program called the Minnesota New Jobs Program was begun in 1976. It was intended to train entry-level workers for new and expanding businesses and was grafted onto the already existing system for vocational and technical education in Minnesota. Launched as an experiment with $80,000 of discretionary Federal vocational education funds, it was not funded by the legislature until 1979 when $500,000 was appropriated. Using $370,000 of these monies, the New Jobs Program served a total of ten employers. However, despite a generally favorable response from the agencies and businesses involved, the Minnesota New Jobs Program is no longer viable. The full amount of the $500,000 appropriation was never made available and persons contacted did not believe additional monies will be released to the program in the next year.[3]

A second approach to linking education and economic development in Minnesota has been the recent development of regional formal agreements among CETA Prime Sponsors, economic developers, local education systems and Job Service offices. A detailed description of this program follows.

Public and private colleges and universities and private vocational-technical schools do not appear to play a role in coordinated development efforts.

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[3]See Smith (April, 1980) for a complete discussion of the Minnesota New Jobs Program.

State-Level Coordinated Program:

Title: No official title.

Type: Regional consortia utilizing public community colleges and area vocational-technical centers.

History: In 1980, the Governor's Council on Employment and Training began to explore ways to link postsecondary education to economic development on a regional basis. The CETA Prime Sponsors interested in developing such linkages were invited to attend exploratory meetings. All but one of the Prime Sponsors chose to do so and eight regional meetings were held during October and November. Each region was encouraged to draw up a formal agreement among the CETA Prime Sponsor, economic developers, local education systems, and the Job Service. The agreement was to specify the type and degree of cooperation among the various parties and would be the basis for designing specific training programs for businesses that agreed to hire the trained people. All of the participating regions decided to draw up such an agreement.

Program Description: The purpose of the regional cooperative agreements is to develop the capacity to offer "tailor-made" training projects for businesses planning to start-up or expand in one of the particular regions. Programs differ slightly by region but function in the same general way. A business interested in growth is identified. This may be done by any party to the agreement but is the primary responsibility of the economic developers. The business identified is then offered training incentives by the economic developers designated in the agreement. This control mechanism is intended to prevent "offers" being made which do not fit the agreement or which cannot be fulfilled.

The designated economic developers usually include the Minnesota Department of Economic Development, development staff of local governments, and where local government is without development staff, private organizations which officially represent the local government and are first instructed by the Minnesota Department of Economic Development in the training program and in economic development in general. By agreement, the designated economic developers are authorized to offer to supply specified types and numbers of trained workers to certain types of businesses within a given period, if the business agrees to hiring the workers. This general offer becomes a part of the developers promotional package.

If a business is interested in the general offer, the economic developers arrange a meeting between the business, Job Service, CETA, and the local postsecondary educational institutions to develop a training program and labor supply. Programs are designed for entry-level workers requiring vocational-technical skills and may utilize the area vocational-technical institute or the local community college. Any training program developed is, in essence, a cooperative agreement among the participants to package their separate existing programs.

The concept of regional agreements is very new and no agreement has been in effect longer than six months. At the time this report was being researched, few inquiries about start-up training had reached the various regional groups and the programs were still viewed as being in the developmental stage.

Administrative Structure: In each cooperative agreement, the participants include the CETA Prime Sponsor, economic developers, local educational systems, Job Service local offices, and other appropriate agencies.

Staff Size: Unknown

Funding: Each participant is expected to use existing funds. In the various memoranda of agreement, the Minnesota Departments of Economic Development and Vocational-Technical Education agree to use the New Jobs Program mentioned earlier to help fund training programs but it must be reemphasized that there are no monies currently available to the Minnesota New Jobs Program.

Average Cost Per Trainee: Unknown

Agency Links: As specified in each memorandum of agreement.

Comparative Role of CETA: Each Prime Sponsor is a principal signatory to the Memorandum of Agreement.

NEW YORK

The state of New York is actively pursuing ways to coordinate its vast postsecondary system with economic development. In responding to a request for information for this study, one official in Governor Carey's office writes, "It is the feeling of this administration that the area of human resource development has been chronically overlooked in terms of its potential to stimulate and support growth. We are very excited about exploring and establishing new initiatives in this critically important field."

While New York's educational system is vast, the state is in a unique position to coordinate and direct educational resources toward economic development. This is true because the New York State Board of Regents is the prime coordinator of educational policy statewide. It includes in its master-planning the public and private sectors of both secondary and postsecondary education and has identified as one of its major program directions the application of "educational resources directly to the problem of retraining, expanding and redeveloping the state's business and industry."

The ways to achieve this goal are still under extensive discussion. At present, programs to link development and education fall into three broad categories: (1) service; (2) research and development; (3) manpower training. Within the first category fall many activities undertaken by the State University of New York (SUNY). For example, SUNY, which includes two as well as four-year institutions, has established a Technology Assessment Information Network to make the technical resources of its 64 campuses immediately assessible at a single point to potential users from government or industry. SUNY also provides a brokerage service which links the services of the various

campuses to business and industry, In addition, SUNY is working with the New York Department of Commerce, the state's development agency, to set up a network of small business assistance and counseling centers.

Research at the state universities is increasingly being directed towards economic development. At the state level, the focus of research and development activity is the New York State Science and Technical Foundation. Created in 1963 by enabling legislation, it has been identified by Governor Carey in his economic plan for the 1980's as a key element in revitalizing industrial research and development in New York State.

The third broad category of programs linking development and education is manpower training. Like most of the states in this study, New York has developed a program to deliver short-term skill training to new or expanding business and industry. Developed only recently, this is the most direct link between development strategies and education which exists in New York and it differs from similar programs in other states by including the private education sector. A detailed description follows.

In reference to manpower training, a second very new program also deserves mention. It authorizes the release of state monies to both the City and State Universities of New York to offset the costs incurred in providing training to business and industry. Entitled the Contract Credit Bill, the appropriation for fiscal year 1981 is $700,000 to the State University of New York and $675,000 to the City University of New York. The legislative wording is quite general and the regulations have not yet been written.

State-Level Coordinated Program

Title: No official title.

Type: Start-up industrial training for new and expanding businesses utilizing public and private secondary and postsecondary institutions.

History: During the past several years, there has been a great deal of interest in New York about the best way to deliver short-term training to new and expanding businesses. With stimulus provided especially from the Governor's Office of Development Planning, it was decided in 1980 to develop a "packaging system." All educational agencies eligible to receive Federal Vocational Education Act (VEA) funds were notified on June 8, 1981 that a small amount of VEA funds was available to respond to the short-term training needs of companies which want to locate or expand in New York State or which require retraining of employees in order to keep pace with technological and other labor market changes.

Program Description: Under the packaging system, every request from business for a specific training program is directed to the State Education Department. Points of contact include the central and regional offices of the State Departments of Commerce, Labor, State, and Education as well as economic development agencies, Chambers of Commerce, regional occupational education planners, education agencies, and CETA Councils.

After one of these sources notifies the State Education Department that a request for training has been received, the Department meets with the firm to determine the number of employees and the specific skills required. Once the training needs have been determined, the State Education Department works with one of thirteen Regional Occupational Education Planning Coordinators to decide which institution is in the best position to meet the firm's need, either through an existing or new training program.

The complete package--training program and funding--becomes part of the Commerce Department's economic development proposal to the firm, or it is implemented directly by the training agency working with the State Education Department and the local development agency or Private Industry Council as appropriate.

Administrative Structure: The packaging system is administered by the State Education Department.

Staff Size: Existing Education Department staff are utilized.

Funding: $1,250,000 in state funds has been provided for this program in addition to a limited amount of Federal Vocation Education Act funds provided as set-asides from Subpart 2 Basic Grant funds. The State Education Department intends to request an additional $10 million at the next legislative session.

Average Cost Per Trainee: Unknown

Agency Links: All agencies involved in the packaging system must direct requests for short-term training to the State Education Department.

Regional meetings are held monthly among the chief executives and Occupational Education Planning Coordinators for the public education institutions offering vocational education programs. The general purpose of these meetings is planning but they have become increasingly directed toward economic development.

Comparative Role of CETA: Every effort is being made to involve CETA and Private Industry Councils in the packaging system.

NORTH CAROLINA

North Carolina's keen interest in developing linkages between economic development and postsecondary education spans several decades. The state's industrial development program, with its attendant new industry training program, had its genesis in the 1950's and was one of the forerunners of the other programs in the Southeast. This program continues to be the principal means by which North Carolina joins economic development to education.

Governor James Hunt is vitally interested, however, in exploring other ways to assist industry in its manpower needs. In a state publication, Hunt is quoted as saying, "In North Carolina we are making a major commitment to skill training, particularly for higher-skilled jobs." Evidence of this commitment is the nonprofit Microelectronics Center of North Carolina. The Center, incorporated in July, 1980, will be responsible for developing collaborative relationships among educational institutions and industrial and government interests. With reference to training, the community college system will establish programs to train highly skilled operators and technicians and at the public and private universities, additional faculty and facilities will be made available for the training of research scientists and engineers. Institutional participants in the program include Duke University (a private institution), North Carolina State University, North Carolina Agricultural and Technical State University, University of North Carolina at Chapel Hill, University of North Carolina at Charlotte, the North Carolina Community College System, and the separately operated, nonprofit Research Triangle Institute. Funding is being sought from a combination of state, federal, and private sources

and it is hoped that the Center will be fully funded and operational by 1984. A request for $2.4 million in state funds is currently under consideration by the North Carolina Legislature.

The Microelectronics Center, while confined to one subject area, offers the first truly comprehensive approach to economic development and education encountered in this study. As Governor Hunt states, "We need a comprehensive approach to skill training--including high schools, community colleges, the university system, and other related skills training programs." The Microelectronics Center represents an impressive step towards such an approach. At present, however, the state's single-sector start-up industrial training program links economic development to training. A description of this program follows.

State-Level Coordinated Program

Title: No Official title.

Type: Start-up industrial training for new and expanding businesses utilizing the public community colleges.

History: North Carolina's industrial training program had its origins in the mid-1950's during the administration of Governor Luther Hodges. Hodges was concerned about the state's economic growth and about the out-migration of labor, and occupational training was identified as one solution. In 1957, the North Carolina General Assembly established industrial education centers as part of the state's vocational education program. These centers, together with the state's community colleges, were incorporated into one system in 1963. The Industrial Training Service, which administers the industrial training program, was not statutorily established in that legislation but rather was permitted by the fact that the community college system is to provide vocational training.

Program Description: The industrial training program is intended to provide short-term, entry-level training for manufacturing firms planning to locate or expand in North Carolina. Since it began, it has trained employees for some 1300 companies. The Industry Services Division of the North Carolina State Board of Community Colleges is responsible for assisting the Department of Commerce in selling North Carolina to

industrial relocation prospects and in providing technical assistance to the institutions of the community college system in the conduct of the start-up training program.

Once it has been determined that a business qualifies for the start-up training program, industrial training specialists from the Industrial Services Division, together with representatives from the appropriate institution, meet with the company to assess manpower needs and to design the training program. The training is rarely conducted in an institution by institutional instructors. Rather, the preference is always for company personnel to conduct the training at the company plant site. For its part, the institution provides local administration. North Carolina will train the company instructor, pay his wages and travel costs, and provide classroom materials, a production materials allowance, and a training facility if necessary.

The company is encouraged to recruit trainees from the Employment Service but this is not mandatory and the company is not required to hire those who are trained. Although there is no statutory limit on training time, the programs average six weeks in length. Through the training process, North Carolina stresses its willingness to be adaptable and flexible to company needs.

Administrative Structure: The program is administered by the Industry Services Division of the North Carolina State Board of Community Colleges. The community college system was under the State Board of Education until January, 1981 when a separate board was established.

Staff Size: 1 Director
1 Industrial Training Specialist (Raleigh)
7 Regional Training Specialists
1 Secretary

Funding: $2 million allocated to institutions to operate programs, $350,000 for administrative costs.

Average Cost Per Trainee: $300

Agency Links: The relationship between the State Board of Community Colleges and the Department of Commerce is informal and yet intense. The State Board is keenly aware that it supports economic development in North Carolina. Its seven Regional Training Specialists are jointly assigned to seven regional offices with field specialists from the Department of Commerce. In addition, joint workshops are help regularly to enhance cooperation between the two agencies.

Comparative Role of CETA: CETA monies are not utilized and the two programs operate independently.

OHIO

The state of Ohio is facing a number of difficult economic problems including obsolescent manufacturing plants, a decline in the number of manufacturing jobs, and a lack of new high technology industries.[4] An effort is being made to address these problems and postsecondary education is seen as having an important part to play. While there seems to be no indication that a comprehensive system linking all postsecondary educational sectors is currently under consideration, programs utilizing one or more sectors are currently being implemented.

The Ohio Board of Regents includes within its jurisdiction both two and four-year institutions. Under the leadership of the Chancellor, the Board of Regents instituted a "Linkages" project in 1980 to develop and enhance cooperative relationships between higher education and business, industry, and government in Ohio. The project is funded in part by $7100 per year from the Education Commission of the States, which has received a foundation grant to conduct a "Lifelong Learning Project." In its first fiscal year, "Linkages" also received approximately $32,000 in additional state and "in-kind" funding.

A number of activities have been undertaken by the Regents to facilitate the development of such cooperation. In general, the activities have four major objectives: (1) Publicize how higher education is meeting the needs of business and industry; (2) Encourage institutions in their public service efforts; (3) Provide a forum for problem solving activities between higher education and business, industry, and government; and (4) Demonstrate that higher education is an important resource and can play a role in economic revitalization.

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[4]For a discussion of Ohio's economy and a history of the state's economic development strategies, see L'Esperance and Hunker, (June, 1979).

The February, 1981 Progress Report on Linkages Activities for the Board of Regents lists eleven projects. Given Ohio's lack of high technology industries, the most important of these is the Ohio Technology Transfer Organization (OTTO). Its goal is to establish a network of eleven community and technical colleges working in cooperation with Ohio State University to provide technical assistance, information, and training to Ohio small businesses. Within OTTO, the University acts as a broker of technical assistance while the two-year institutions perform the technical extension service role. Hence, OTTO is intended to link research to the marketplace.

A more ambitious effort to link secondary and postsecondary education to economic development is found within Ohio's vocational and technical education community. That this community should become the chief educational element in the state's development strategy is consistent with the pattern found in many of the other states surveyed. It is also consistent with the fact that The National Center for Research in Vocational Education is based at Ohio State University. As it is among educators elsewhere, the Center is enormously influential in Ohio and this influence is seen in the development of the program described below.

State-Level Coordinated Program

Title: Ohio Vocational/Technical Resource Consortia

Type: Regional consortia utilizing public secondary institutions and public community colleges, area vocational-technical centers, and university branch campuses.

History: Ohio vocational education representatives have traditionally worked with the state's Department of Economic and Community Development on an informal basis to address the training needs of business and industry. However, a more formal, efficient way to respond to industrial

start-up training needs was desired and in 1979, statewide planning for the development of regional consortia was initiated by the Division of Vocational Education of the Ohio Department of Education in conjunction with the Ohio Vocational Directors' Association. Twenty-three geographical regions were defined on the basis of Vocational Planning Districts and by 1980, the statewide program had begun to develop funding and to coordinate its activities with state and local business and organized labor groups and with other state agencies. The regional consortia were also initiated during 1980 and directors were hired for each consortium to coordinate activities within each area. All consortia were operational by January, 1981.

Program Description: The Ohio Vocational/Technical Resource Consortia were designed to be brokers of training programs and resources for new and expanding businesses. Manufacturing firms are intended to be the chief beneficiaries of these services but educational opportunities in all occupational areas are available.

At the state level, the Director of Educational Communication for Domestic and Foreign Business and Industry works with the Department of Economic and Community Development, as well as with other concerned groups such as the Ohio Chamber of Commerce and the State Labor Council, to encourage business expansion. He is also responsible for coordinating the activities of the twenty-three consortia directors. Direct services are provided by established vocational and technical agencies after consortia members and staff validate training needs and assist employers, unions, and training agencies in negotiating resources and project specifications into contractual form.

While services are being provided on an individual basis to business and industry at this time, it is not possible to enumerate these services until the Legislature approves the program's funding and a program description can be released to the general public.

Administrative Structure: At the state level, the Vocational/Technical Regional Consortia program is administered by the Director of Educational Communication for Domestic and Foreign Business and Industry in the Division of Vocational Education of the Ohio Department of Education. This person works with the twenty-three regional directors to coordinate training programs and resources. A Vocational/Technical Resource Consortium consists of a director and 15-20 representatives of local business, education, and organized labor. Consortia are governed by the full-time director and by officers elected by members. Sub-committees are selected to oversee collaborative programs in specific occupational areas.

Staff Size: Ohio Division of Vocational Education: 1 Director
23 Regional Consortia: 1 Director (each)

Funding: Regional consortia were initially organized using state and federal vocational education funds. A $500,000 grant from the Governor's CETA 1% "linkage" funds, combined with $170,000 in vocational funds, supports a full-time director and travel at each of twenty-three regions. The state's $29,000 per site is supplemented by local in-kind contributions for clerical support, supplies, office space and utilities through Chamber of Commerce and educational institutions. In some cases, local CETA Prime Sponsors add to the funds available from the state level.

At present, program services are being funded on a project by project basis through a number of unspecified sources. Appropriations have been requested of the Legislature and it is anticipated that the program will be considered on a priority basis at the next legislative session.

Average Cost Per Trainee: Unknown

Agency Links: The Division of Vocational Education, Ohio Department of Education, administers this program at the state-level. Its Director of Educational Communication for Domestic and Foreign Business and Industry meets almost daily with the Department of Economic and Community Development on an informal basis. At the local level, the twenty-three consortia directors are all members of the Ohio Development Association, a private group of local development specialists.

Comparative Role of CETA: The consortia were initially established with Governor's CETA 1% "linkage" funds and in some regions local CETA Prime Sponsors also provided funds and leadership. Close coordination with CETA Private Industry Councils is anticipated and the consortia may eventually become coordination points for CETA training programs.

OKLAHOMA

Oklahoma enjoys particularly good economic health. Its oil and gas reserves, its favorable tax structure, and its location in the Sun Belt have certainly all contributed to a highly positive picture. However, many Oklahomans also attribute their state's good fortune to the aggressive and innovative role vocational education has played since the late 1960's.

Vocational education began to play a systematic role in Oklahoma's economic development in 1968 with the establishment of the so-called "Special Schools." This program was intended to provide start-up training to new and expanding businesses and it remains a vital part of Oklahoma's development strategy. A detailed description of the Special Schools program follows.

Since 1980, however, several other means of linking economic development to postsecondary education have been developed. The first of these is the creation of the Oklahoma Productivity Consortium which is intended to address the problem of declining increases in productivity. The Department of Vocational and Technical Education, with $250,000 in start-up funds, hired a Productivity Consultant who has spent the past year developing the program. As envisioned, the Productivity Consortium will offer to interested small and medium-sized businesses traditional management and research services as well as non-traditional "lifestyles support services" including physical and nutritional assessment and evaluation. Large businesses have not been excluded from these plans but it is believed that they prefer to develop their own such programs while this is not possible for many smaller companies. Funding for the program has not yet been

determined. The Consortium Board of Directors is currently considering such sources as state funds and user fees.

Another highly innovative approach to economic development initiated by the Department of Vocational and Technical Education is an experimental program to address the persistent need for development in seven rural counties in southeast Oklahoma. Despite the Special Schools program, Oklahoma has found it extremely difficult to attract industry to these underdeveloped counties. It has been decided, therefore, to build a new economic base in the area by developing new products or processes or by obtaining bidder contracts for existing industries. The area vocational-technical schools will train managers and supervisors and make entrepreneurial classes available to all students. Under the program, "incubator industries," employing eight to twenty persons, will be created with project funds. As the new business becomes established, part of the original investment in it will be paid back to the program. The first such business is a firm manufacturing an aluminum subpart under a vendor contract and it began operation July 1, 1981. The project is currently funded with approximately $750,000 in federal funds (Federal Rural Iniative) as well as by some funds from Vocational-Technical Education. Other funding sources are being sought.

It should be reemphasized that all these programs utilize the public area vocational sector only. Oklahoma's public universities do not appear to play any systematic role in current development strategies. This is despite the fact that a reportedly successful program was conducted in 1975 between the state's Industrial Development Department and Oklahoma State University to provide technical assistance to small growth-oriented firms.[5] Persons contacted were unable to explain why the program was not

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[5]For a description of this project, see P. Betty (April, 1977).

continued except to suggest a possible appearance of favortism of one state university over another. The economic development activities of the public community colleges and of the private technical schools and private colleges and universities are unknown.

State-Level Coordinated Program

Title: Special Schools

Type: Start-up industrial training for new and expanding businesses utilizing public area vocational-technical centers.

History: The Special Schools program has its beginnings in the late 1960's when Governor Dewey Bartlett sought to raise the per capita income of Oklahoma residents and to stop the state's out-migration of labor. In 1967, Governor Bartlett, together with Lt. Governor George Nigh (the present Governor of Oklahoma), and Dr. Francis Tuttle, the new State Director of Education, visited other states in the Southeast with start-up industrial training programs and it was decided to institute a similar program in Oklahoma. Because it was felt that vocational education should be given a higher priority, a separate Oklahoma State Department of Vocational and Technical Education was created through legislation and the Special Schools were funded as a part of that Department on January 1, 1968. Since its inception, the Special Schools program has trained some 28,000 employees for 280 companies. It has enjoyed the interest of two of the state's most important political figures, Governors Bartlett and Nigh, as well as that of Dr. Tuttle, who continues to be an enormously influential and popular State Director of Education.

Program Description: The State Department of Vocational and Technical Education uses its Industrial Technical Services Division to assist new or expanding Oklahoma industries in their manpower needs. The Industrial Technical Services Division is located in Oklahoma City in the same office building as the Economic Development Department and works with that agency to coordinate the training needs of industry through existing vocational programs or through the Special School programs.

The Special Schools Division of the Oklahoma Department of Vocational and Technical Education, located in Stillwater, has specific responsibility for custom-tailored job training programs. A staff member is assigned to coordinate the training program. Manpower needs are assessed and a training program designed. This is formalized into a contractual agreement which specifies the respective roles of the Department of Vocational and Technical Education, the company, and the area vocational-technical

center, if appropriate. Oklahoma will provide the cost of instructors (company personnel are preferred over institutional instructors); provide equipment and machines (the state maintains a warehouse inventory of approximately $2 million of equipment); and provide training materials for instruction.

Typically, the training is carried out in the area vocational-technical center. However, the training may occur on the plant site or the Special Schools Division, in conjunction with the local community, will provide temporary site training facilities if necessary. Trainees are recruited by the company, generally from the Employment Security Commission. Pre-employment training is preferred but on-the-job training is also available. There is no formal limit on the length of a training program.

Special Schools is intended to provide entry-level employees for manufacturing firms but service companies may also qualify. (For example, Avis recently used Special Schools to train some 250 CRT operators.) Due to Oklahoma's low unemployment rate (3.6% in June, 1981) the Special Schools program will focus increasingly in the coming years upon existing Oklahoma industries and upon longer, more in-depth training required for highly technical jobs.

Administrative Structure: The Oklahoma Department of Vocational and Technical Education is responsible for administering the state's vocational-technical system which includes 32 area vocational-technical centers. The Industrial and Technical Services Division (ITS) and the Special Schools Division are within the State Department of Vocational and Technical Education. ITS was set up at the state level to assist the Economic Development Department in its efforts and to coordinate the training needs of industry. The Special Schools Division has specific responsibility for tailor-made job training programs.

Staff Size: Industrial and Technical Services Division (Oklahoma City)
- 1 Director
- 1 Professional
- 1 Secretary

Special Schools Division (Stillwater)
- 1 State Coordinator
- 5 Regional Coordinators

Funding: Approximately $817,000 in 1980 for Special Schools

Average Cost Per Trainee: $375 (1980)

Agency Links: By housing ITS and the Economic Development Department in the same building, there is continual informal communication between the two offices. ITS maintains a "hot-line" to the Special Schools Division in Stillwater and the two offices confer regularly from virtually the first contact with a prospect.

Comparative Role of CETA: Although officials contacted expressed a willingness to couple the Special Schools program with CETA, they report that the companies they work with prefer to use state programs only.

OREGON

The state of Oregon is currently suffering from rather adverse economic conditions. The reasons for this are complex but doubtless include the state's "no-growth" policy of the early 1970's and the current decline in housing starts with its concomitant decline in the wood products industry.

Given this unfavorable economic picture, efforts are being made to revitalize industrial development in the state and postsecondary education is seen as having a part in that process. For example, Senate Bill 947 was introduced into the Oregon Legislature in June, 1981 to provide technical assistance and financial aid to businesses, workers, and communities faced with plant closures. One of the provisions of this bill provides for the retraining of displaced employees; the Economic Development Department would reimburse each community college for each affected employee taking vocational training courses.

This bill was introduced by Senator L.B. Day who also chairs "Project 90"--a committee of leading representatives from government, business, and education seeking to enhance the economic development of the greater Salem area in the 1990's. The final report is not yet available but in the Report of the Education and Employment Subcommittee, chaired by Arthur Binnie, President of Chemeketa Community College, it is recommended that: (1) A central contact be established for new or expanding industry seeking information; and (2) A coordinating committee be established to work with new or expanding industry. As envisioned, the plan is similar to the regional consortia recently organized in Minnesota on a statewide basis.

At present, Oregon seems to rely chiefly on local development efforts. The community colleges play a major role in economic development and the extent to which any particular institution performs this function depends upon the energy and interest of the individuals involved. The choice of Salem as the site for Siltec Corporation and of Portland for Wacker Siltronics are two such examples. In both cases, community college presidents were vitally interested in using their institution's resources for such a purpose.

It does not appear that Oregon's private vocational-technical schools or its public or private colleges or universities play a significant role in economic development. The relationship of postsecondary education to overall state development strategy is unknown. Both written and telephoned requests for information from the Oregon Department of Economic Development went unanswered.

SOUTH CAROLINA

South Carolina currently finds itself in an enviable economic position. No longer an agrarian state, it has reversed the out-migration of labor it suffered in the early 1960's and it has diversified its economy. The picture is so favorable that the U. S. Commerce Department's Bureau of Economic Analysis has identified South Carolina as one of the South's growth leaders in both employment and income in the next fifteen years. Many factors have undoubtedly contributed to this situation but in South Carolina, much of the credit is given to the state's technical education system. In fact, two officials of the South Carolina State Development Board write, "Most who are involved in the state's development program agree that South Carolina's technical education system has had more favorable influence on the state's development than all the other [industrial development] incentives together" (Leak and Burgess, April, 1980).

The principal means by which South Carolina links economic development to technical education is its "Special Schools" program which provides start-up industrial training for new or expanding manufacturing firms. It should be emphasized that this development strategy utilizes a single educational sector, the public area vocational-technical centers. The roles of the private vocational-technical schools and of private colleges and universities are unknown. The role of public universities and colleges is also unknown except to note that one official from the State Development Board, in responding to a request for information for this study, emphasized the high degree of cooperation among the Development Board, the Technical Education Commission, and the college and university systems.

State-Level Coordinated Program

Title: Special Schools

Type: Start-up industrial training utilizing the public area vocational-technical centers.

History: In the early 1960's, an agrarian economy, out-migration of labor, and lack of industry were serious problems for South Carolina. In 1961, under the leadership of Governor Ernest F. Hollins, the "Study into the Needs of the State Development Board on the Subject of Vocational Training" was undertaken by a Joint Senate-House Committee of the South Carolina General Assembly. The Committee found that fewer than 5% of the population finished college, leaving 95% of the citizens to seek employment without a college degree. In order to train these people for employment and to attract new industries to the state, the Committee recommended (1) a crash program to provide training for existing and new industries; and (2) development of a system of postsecondary technical education institutions.

By legislative mandate, the State Committee for Technical Education, now known as the South Carolina Board for Technical and Comprehensive Education, was created to implement such a program, and the administrator of the highly successful program in North Carolina was appointed Director of Technical and Industrial Training.

In consultation with the State Development Board, the Committee for Technical Education acted immediately to develop the Special Schools program to serve industry's needs on a flexible, immediate response basis. As soon as this program was underway, the statewide system of technical education institutions was begun, with the first students enrolling in 1962.

The entire technical education system--including the Special Schools program and the statewide technical institutions--is known as TEC. Since its inception in 1961, TEC has enjoyed tremendous growth and success. There are now sixteen vocational-technical centers within commuting distance of nearly every South Carolinian and by June, 1980, Special Schools had trained 67,201 people for 582 companies located in all 46 South Carolina counties. This growth is attributable, at least in part, to the support TEC had from three of the state's governors: the 1961 study was instigated by Governor Hollins; the Committee was chaired by Governor John C. West, then a Senator; and the vice-chairman was Robert E. McNair, West's predecessor as Governor and then a Representative.

To assure TEC's continued growth, a decade-long plan called "Design for the Eighties" is currently being implemented. It is intended to incorporate state-of-the-art technology into industrial start-up training and one and two-year programs at the vocational-technical centers. "Design for the Eighties" includes industrial visits, state-of-the-art seminars for TEC faculty and staff, and the development of five innovative technical resource centers. These efforts are designed to assist in economic development by showing industrial prospects that the TEC system is staying current with technological change.

Program Description: The Special Schools program addresses the start-up manpower needs of new or expanding manufacturing companies by training the needed entry-level employees. These tailored pre-employment training programs are designed and coordinated by the Industrial Services Division (DIS) of the State Board of Technical and Comprehensive Education. DIS works very closely with the State Development Board to attract industry to South Carolina and the Director of DIS makes himself available to the Development Board on a priority basis.

Once a company has decided to expand or relocate in South Carolina, DIS staff analyze the company's training needs and plan a recruitment and training schedule. Courses generally range in length from 3-26 weeks. Trainees are recruited through the Employment Security Commission and attend classes without pay. In the early stages of the Special Schools program, much of the training was conducted at the plant site or in a temporary facility. Although these are still options, the TEC centers are so conveniently dispersed throughout the state that now approximately 90% of the training is center-conducted. The centers also provide most of the instructors although company personnel are utilized when appropriate. Also provided for the start-up training are the necessary instructional materials, including manuals and audio-visual aides, as well as production machinery from TEC's central warehouse or rented from a private supplier.

Administrative Structure: The Industry Services Division of the State Board of Technical and Comprehensive Education is entirely responsible for conducting the start-up training program. The Division employs Industrial Training Consultants and an Equipment Coordinator as well as an Industrial Services Coordinator to oversee at the state level the activities of the Industrial Consultants dispersed throughout the state at the various TEC centers.

Staff Size:

Industry Services Division (Columbia)
- 1 Director
- 1 Administrative Assistant
- 4 Industrial Training Consultants
- 1 Industrial Services Coordinator
- 1 Equipment Coordinator
- 2 Secretaries

TEC Centers
- 13 F.T. Industrial Consultants
- 2 P.T. Industrial Consultants
- 14 Equipment Personnel

Funding: Special Schools received approximately $703,000 for administration in fiscal year 1980.

Average Cost Per Trainee: $519

Agency Links: The Industry Services Division maintains an informal but close relationship with the State Development Board. South Carolina's technical education system was created with the mission to train an available work force in an effort to attract more industry into the state. As a result, the Director and staff of the Industry Services Division make every effort to assist the Development Board.

Comparative Role of CETA: The Special Schools program utilizes no CETA monies and the two programs operate independently.

WISCONSIN

The state of Wisconsin does not possess a comprehensive system for coordinating economic development with postsecondary education. Like many of the other states in this study, its efforts in this regard are confined to a single sector, in this instance the public area vocational-technical centers. However, because industrial training is developed and funded at the district level, with only minimal coordination at the state level, Wisconsin differs from the other states under examination, representing a mixed state and local model.

The role of the other educational sectors in Wisconsin is unknown save that of the University of Wisconsin system. At the various campuses of the University of Wisconsin, development activities include the following: (1) the Wisconsin Vocational Studies Center, which develops research and training programs related to business and industry; (2) the University-Industry Research Program, which makes available information and special research facilities to industry and government; (3) the Small Business Development Center, the nation's first S.B.D.C., now established at universities throughout the country to provide management and technical assistance; (4) the Department of Urban and Regional Planning; (5) the Employment and Training Institute, which develops educational programs for those in the field of employment and training; and (6) the Bureau of Business Research.

State-Level Coordinated Program:

Title: No official title.

Type: Start-up industrial training for new and expanding businesses utilizing the public area vocational-technical centers.

History: Wisconsin's vocational schools were established by state law in 1911. Legislation was passed in 1965 which created a Board of Vocational, Technical and Adult Education (VTAE) and which mandated that all Wisconsin citizens had to be within a VTAE district by 1970. There are sixteen such districts.

Over the course of their history, the Department of Vocational, Technical and Adult Education and the sixteen VTAE districts have come increasingly to see themselves as participants in the statewide effort to foster economic growth. This role has been evolutionary but has gained particular attention since 1980 when the Departments of Local Affairs Development and of Business Development merged into the Wisconsin Department of Development (DOD), the agency charged with the state's economic development. DOD is currently promoting a strong linkage with the Board of Vocational, Technical and Adult Education and the Board's State Director, Robert Sorensen, has identified economic development as one of vocational education's principal goals during the 1980's.

Program Description: While start-up training is available to new and expanding businesses in the state of Wisconsin, it is difficult to describe program services in detail because each VTAE district provides such services on a local basis, dependent upon district resources. Each district has hired an Economic Development and Training Coordinator to coordinate economic development activities and their efforts are coordinated at the state level by the Director of Community Services within the Department of Vocational, Technical and Adult Education. The VTAE district and state representatives accompany DOD personnel on recruitment trips and work together to promote economic development projects. However, the local district is solely responsible for the planning and delivery of start-up training programs.

Administrative Structure: Start-up training programs are designed by individual VTAE districts under the direction of the respective district Economic Development and Training Coordinator. The effort is coordinated at the state level by the Director of Community Services within the Department of Vocational, Technical and Adult Education.

Staff Size:

Department of Vocational, Technical and Adult Education
1 Director of Community Services

16 VTAE Districts
1 Economic Development and Training Coordinator (each)

Funding: Since start-up training is seen as part of the VTAE mission, no special funds have been earmarked. An unpublished position paper on the role of the VTAE system in economic development suggested that such funds be sought but the Board decided against doing so. In fact, one official contacted noted that as the start-up training programs grew in visibility, the Wisconsin Legislature had begun to question this use of state funds and there is currently a movement within the Legislature to make industry pay for such services.

The approximate budget for the entire VTAE system is as follows: $65 million (state); $10 million (federal); and $75 million (local).

Average Cost Per Trainee: Unknown

Agency Links: The relationship between the DOD and VTAE is informal but representatives from both agencies are actively seeking to increase communication.

Comparative Role of CETA: Every effort is being made for VTAE districts to work with Private Industry Councils to assess the needs of local industries and to link resources to provide training for private sector jobs.

CHAPTER III

THE RELATIONSHIP BETWEEN ECONOMIC DEVELOPMENT AND POSTSECONDARY EDUCATION IN ARIZONA'S NEIGHBORING STATES*

*These states were added later in the course of this study and only limited contacts were made. Some relevant state programs linking postsecondary education and economic development may, therefore, have been overlooked.

CALIFORNIA

There does not appear to be any comprehensive system for linking economic development and postsecondary education in California. The state's public colleges and universities have undertaken a number of independent projects related to economic development. In the 1981 inventory published by the Western Interstate Commission for Higher Education cited earlier, these projects fill over forty pages and include such varied services as centers for business and economic research, natural resource and energy projects, urban and regional development institutes, and public policy research organizations. The economic development activities of California's private colleges and universities are unknown.

California's other educational sectors participate in the California Worksite Education and Training Program. While this program may be utilized as an economic development tool to assist new or expanding business, it differs from the other programs described in this study by being a manpower development program. As such, it is administered by the Employment Development Department rather than by the State Departments of Development or Education.

State-Level Coordinated Program

Title: California Worksite Education and Training Program

Type: Start-up or upgrade training utilizing public secondary institutions, public community colleges, private trade and technical schools, and community-based organizations.

History: The legislation that was to become the California Worksite Education and Training Act (CWETA) was first proposed by Governor Edmund G. Brown, Jr., in his State-of-the-State Address in January, 1979. It was

designed to address the dual problems of high unemployment, especially among young persons, and the shortage of skilled workers, particularly in the electronics and health industries. The legislation, SB 132, was passed on September 29, 1979 and is effective until September 29, 1982. In its first year of operation, 2,193 persons were trained for entry-level jobs and 1,952 received upgrade training for a total of 4,145 trainees.

Program Description: CWETA attempts to address the employment problems of the urban and rural economically disadvantaged, youths, displaced workers and other persons with obsolete or inadequate job skills. The program calls for the Employment Development Department, in cooperation with the Department of Industrial Relations, the Chancellor's Office of the Community Colleges, the State Department of Education, the Department of Rehabilitation, and CETA Prime Sponsors to develop training programs that meet job skill needs of specific employers, provide marketable skills and job opportunities to the structurally unemployed, and offer courses for workers to upgrade their skills. Although funds may be obtained to train workers for a variety of occupations, programs to train nurses and workers for the electronics and aerospace industries are currently stressed.

A proposal to institute a training program may come from employers, employee organizations, local education agencies, CETA Prime Sponsors, and other training providers. Personnel from the appropriate Employment Development Department field office assist in developing local projects, along with other representatives of the Employment Development Department and CWETA at the regional level. Once the proposal has been submitted, it is received by the CWETA Program Unit in Sacramento and presented to the Interagency Advisory Committee consisting of state-level rspresentatives from the Department of Industrial Relations, the Chancellor's Office of the Community Colleges, the State Department of Education, and the Employment Development Department. The Committee's purpose is to review CWETA proposals and provide comments to the Employment Development Department Director.

To gain approval, a proposal must not compete with or duplicate already existing apprenticeship programs or supplant any vocational training program provided by employers, employee organizations, or any K-14 institutions. Although a private school or community-based organization may conduct classroom instruction, public institutions receive priority. Employers select those to be trained, but must agree to hire participants for entry-level jobs as a result of entry-level training or to promote participants after the completion of career upgrade training. Finally, only those entry-level training projects with career advancement opportunities are approved.

CWETA will finance only a portion of the costs of an approved project. Classroom costs generally are financed like any other educational program

through the basic school financing systems in place. CWETA will pay the extra costs incurred by a school district in developing a program tailored to a particular business. CWETA also will pay for increased costs of supervision, administration and other extra costs a business incurs through special on-the-job training. In order to serve the targeted population, CWETA will pay for such supportive services as wage replacements, child care and travel.

Administrative Structure: CWETA is administered at the state level by the California Employment Department. Local administration is provided by CWETA Regional Consultants and by some 200 Employment Development Department field offices.

Staff Size: 10 Professionals (Sacramento)
6 CWETA Regional Consultants

Funding: $25 million was appropriated for the three-year period 9/29/79-9/29/82. 90% of the funds are to be allocated to projects in urban areas and 10% to projects in rural areas.

Average Cost Per Trainee: $2297

Agency Links: The Employment Development Department works closely with the Department of Industrial Relations, the Chancellor's Office of the Community Colleges, the State Department of Education, the Department of Rehabilitation, and CETA Prime Sponsors in developing training programs.

Comparative Role of CETA: CWETA is designed to actively participate with CETA Prime Sponsors in developing training projects. However, it is not required that CWETA participants be economically disadvantaged.

NEVADA

Comprehensive planning to link economic development to postsecondary education is lacking in Nevada. Within the two state universities, economic development efforts are apparently limited to research on natural resources, energy, and business and economics. Within the state's vocational education community, an effort is being made to develop linkages with business and industry. At the state level, the Director of Vocational Education is a member of a Governor's committee on MX development along with other representatives from education, business and industry, the U.S. Air Force, the Human Resources Division, and Employment Security, At the county level, there is also interest in developing linkages with business and industry. For example, in Clark County, which includes Las Vegas, the local Director of Vocational Education is conducting a linkages project. Any additional programs to link economic development to postsecondary education are unknown. A telephone conversation with a representative of the Department of Economic Development revealed no further information.

NEW MEXICO

New Mexico has no comprehensive program to link all postsecondary educational sectors to economic development. To enhance the growth of the state's energy and mining industries, Energy Institutes have been established at New Mexico State, New Mexico Tech, and the University of New Mexico by the Energy Resource and Development Division. Programs in the fields of mining and oil and gas have also been established at the community colleges in Grants and Farmington. However, the most notable program to link post-secondary education to economic development in New Mexico is the In-Plant Training Program utilizing the state's public area vocational-technical centers. A description of this program follows. Development efforts by the other educational sectors in New Mexico are unknown.

State-Level Coordinated Program

Title: New Mexico In-Plant Training Program

Type: Start-up industrial training for new and expanding business utilizing the public area vocational-technical centers.

History: A lack of manufacturing jobs has long been a problem for the New Mexico economy. To address this problem, the Legislature passed the Development Training Act in 1972 which established the New Mexico In-Plant Training Program. Since its inception, New Mexico's manufacturing base has increased from less than 5% to approximately 7%.

Program Services: The In-Plant Training Program is intended to train entry-level workers for new or expanding manufacturing firms. The program consists of the cooperative efforts of the Department of Education's Vocational Division, the Employment Security Department, and the Commerce and Industry Department. When a manufacturer decides to expand or relocate in New Mexico and requests training services, the Economic Development Division of the Commerce and Industry Department obtains the company's history and financial information. The In-Plant Training Coordinator from the Division of Vocational Education works with the company to determine

the specific skills and training times involved. Information on the company and the tailored training program is presented to the Board of Economic Development's In-Plant Training Committee for approval.

The training times and procedures are determined by a fixed formula. For example, an electronic assembler will have the following training schedule: (a) Plant Orientation, 3 hours; (b) Safety, 2 hours; (c) Tool Nomenclature, 16 hours; (d) Component Identification, 16 hours; (e) Manipulative Practice, 100 hours; and (f) On-the-Job Training, 400 hours. The trainee is paid an hourly wage at a rate set by the employer. In the case of the electronics assembler, the employer pays the trainee for a total of 537 hours and is, in turn, reimbursed by the In-Plant Training Program for one-half of this amount, up to a maximum of $3500.

Trainees are recruited by the company, usually with the assistance of the Employment Security Department. All trainees selected must be U. S. citizens and residents of New Mexico for a minimum of one year and must not have terminated a public school program (K-12) within the past three months except by graduation. Trainees must be guaranteed full-time employment with the company upon completion of the training.

Training is generally conducted at the plant site but may also take place in an area vocational-technical center. Instructors are either company personnel or faculty from the vocational-technical center. The maximum training period is 1,040 hours.

Administrative Structure: Funds for the In-Plant Training Program are allocated by the Legislature to the Commerce and Industry Department. The Division of Vocational Education administers these funds and is responsible for providing and monitoring all training programs.

Staff Size: Division of Vocational Education: 1 In-Plant Training Coordinator

Funding: The original 1972 fiscal year appropriation was $400,000. The current yearly appropriation is $1 million.

Average Cost Per Trainee: $1000

Agency Links: The Division of Vocational Education works cooperatively with the Economic Development Division of the Commerce and Industry Department to develop proposals to be funded by the In-Plant Training Program. Final approval of proposals is granted by the In-Plant Training Committee, a subcommittee of the Governor's Board of Economic Development.

Comparative Role of CETA: Every effort is made to coordinate CETA with the In-Plant Training Program and CETA funds have been utilized in the past. It is expected, however, that the state will fund most of the In-Plant Training Program in the future.

TEXAS

It does not appear that Texas has any comprehensive plan for linking economic development to postsecondary education. Texas does, however, offer a state-funded start-up training program as an industrial development incentive. While many of the other states in this study offer such a program, Texas is unique in the range of public institutions which participate--secondary schools, community colleges, area vocational-technical centers, and selected colleges and universities. This program is described below.

In addition to providing start-up training, Texas is considering other means to link economic development to vocational education. In its 1978 Annual Report, the Advisory Council for Technical-Vocational Education in Texas recommended that a special task force be established at the state level to serve as a clearinghouse for review of local economic development needs that cannot be met by existing public resources. An Industry Services Program Task Force was established in 1979 by the Texas Education Agency and continues to meet to formulate plans for an Industry Services Program.

State-Level Coordinated Program

Title: Texas Industrial Start-Up Training Program

Type: Start-up industrial training for new and expanding business utilizing public secondary institutions, public community colleges, public area vocational-technical centers, and public colleges and universities.

History: A general plan for an industrial start-up training program was purchased by the State of Texas from a consulting firm, Harper, Cotton, and Little, Inc.[1] in 1971. Based upon this plan, the Texas Education

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[1]Mr. Little, who is currently the President of Development Resources, Inc. of Charlotte, North Carolina, designed a similar program for Louisiana in 1974.

Agency and the Texas Industrial Commission cooperated in developing the Texas Industrial Start-Up Training Program. It was operated initially with federal funds made available by the Education Agency and was funded by an appropriation of $1 million from the state legislature for the 1976-77 biennium. During its ten year history, the program has trained some 25,000 employees for over 250 companies.

Program Description: The program is designed to provide start-up training of entry-level workers for new and expanding manufacturing firms. An industrial consultant from the Texas Industrial Commission meets with the company to identify training needs. A minimum of twelve new jobs in a trainable category is required for a firm to qualify for assistance. Once the training needs have been determined, the Texas Education Agency (T.E.A.) designates a training institution based upon geographical location and program expertise. The institution and industry then jointly develop a training proposal which is submitted to T.E.A. for approval. When the proposal is approved, the institution coordinates the training program and funds flow from T.E.A. to the institution.

Training is typically conducted at the plant site but may also take place at the designated institution. If it is necessary to utilize a facility other than the plant or institution, the community in which the plant is locating is expected to provide one without cost. Instructors are paid by the state and may come either from the company or from the institution. Instructional supplies are reimbursed. Trainees are generally recruited and screened by the Texas Employment Commission and must be hired by the company at the completion of training, usually lasting about six weeks. The company must also furnish all training equipment and materials as well as pay for utilities and custodial services.

Administrative Structure: The Texas Education Agency is responsible for approving all training proposals and providing funds to the designated institutions to carry out training programs.

Staff Size: Texas Education Agency: 1 Coordinator of Special Projects

Funding: $1.8 million was appropriated for the 1980-81 biennium.

Average Cost Per Trainee: Unknown

Agency Links: The Texas Education Agency and the Texas Industrial Commission cooperate informally to enhance economic development through the Industrial Start-Up Training Program.

Comparative Role of CETA: The two programs generally operate independently although they have, on occasion, been combined.

UTAH

Efforts to link economic development with postsecondary education in Utah are apparently limited. Services provided to the community by the state colleges and universities are typical of those found elsewhere: centers to study natural resources, energy, government policy, and business and economic conditions. The only other educational sector that could be identified as playing a role in the state's economic development is that of vocational education which has a modest program to assist new and expanding businesses in their manpower needs. This program is described below.

State-Level Coordinated Program

Title: No Official title.

Type: Start-up industrial training for new and expanding business utilizing the public area vocational-technical centers.

History: Funds to provide start-up training have been available for approximately twenty years with varying degrees of legislative support.

Program Services: The Director of Vocational Education participates by invitation in meetings conducted by the Utah State Department of Industrial and Economic Development. If a company has decided to relocate or expand in Utah and inquires about training, the Director of Vocational Education acts as a broker, working with the company and with the appropriate postsecondary institution to identify training requirements and available institutional resources.

A limited amount of state funds is also available for start-up training for entry-level workers in targeted industries (especially electronics). Trainees are recruited through Employment Security and trained at the plant site or at a public area vocational-technical center by a company or state provided instructor. The company must provide any high cost, specialized equipment. Neither the employer nor the trainee is obligated to the other once training is completed.

Administrative Structure: The Division of Vocational Education, Utah State Office of Education, is responsible for administering any start-up training program.

Staff Size: Existing staff are utilized

Funding: Approximately $300,000 is appropriated each year.

Average Cost Per Trainee: Unknown

Agency Links: The Division of Vocational Education cooperates with the Utah State Department of Industrial and Economic Development in its development efforts but the relationship between the two agencies is entirely informal.

Comparative Role of CETA: CETA funds are occasionally used in providing start-up training but the two programs generally function independently.

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ATTACHMENT A

ARIZONA COMMISSION FOR POSTSECONDARY EDUCATION

1937 WEST JEFFERSON
PHOENIX, ARIZONA 85009

TELEPHONE (602) 255-3109

April 23, 1981

Dear _____:

The Arizona Commission for Postsecondary Education and the Governor's Office of Economic Planning and Development are conducting a descriptive study of the relationship between the postsecondary education community and economic development in twelve selected states. Because of the success your state has achieved in this area, it has been selected as one of the twelve we would like to examine.

At this point in the study, we wish to locate any state reports or literature that may be available from your office. We are especially interested in materials which describe the relationship that exists between the postsecondary education community and economic development in your state as well as current cooperative projects.

I would appreciate your having the materials sent to my attention at the Commission office. After reviewing the materials, I will contact your office if additional information is needed. Please advise me as to who is the appropriate person to contact.

Sincerely,

JoAnn Wilson
Research Associate

ATTACHMENT B

ARIZONA COMMISSION FOR POSTSECONDARY EDUCATION

1937 WEST JEFFERSON
PHOENIX, ARIZONA 85009

TELEPHONE (602) 255-3109

April 30, 1981

Dear _____:

The Arizona Commission for Postsecondary Education and the Governor's Office of Economic Planning and Development are conducting a descriptive study of the relationship between the postsecondary education community and economic development in twelve selected states. Because of the success your state has achieved in this area, it has been selected as one of the twelve we would like to examine.

At this point in the study, we wish to locate any state reports or literature that may be available from your office. We are especially interested in materials which describe the relationship that exists between the postsecondary education community and economic development in your state as well as current cooperative projects. By "postsecondary education" we are referring to public and private colleges and universities, community colleges, and private trade and technical schools beyond the high school level. Presumably, these activities might involve the Governor's office, the Department of Administration, the Department of Business Development, the University of _____, the Department of Education, or other agencies.

Our study is still at the initial stages, but a preliminary list of specific topics includes the following:

1. How the program of coordinated activities originated;
2. Formal and informal relationships among the agencies involved;
3. Administrative structure and staff size;
4. Funding mechanisms;
5. Communication links; and
6. Comparative roles of vocational education and CETA.

These topics are not inclusive and are meant merely to be suggestive. I appreciate your help in locating this information.

Sincerely,

JoAnn Wilson
Research Associate